



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 06/10/2004

WOOD HERRON & EVANS  
2700 CAREW TOWER  
CINCINNATI, OH 45202

EXAMINER

KEMPER, MELANIE A

ART UNIT

PAPER NUMBER

3622

DATE MAILED: 06/10/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/004,034	01/07/1998	BRIAN JOHN CRAGUN	IBM/33B	9754

TITLE OF INVENTION: AUTOMATIC SALES PROMOTION SELECTION SYSTEM AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	09/10/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

## I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
(703) 746-4000**

**or Fax**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590 06/10/2004

WOOD HERRON & EVANS  
2700 CAREW TOWER  
CINCINNATI, OH 45202

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/004,034	01/07/1998	BRIAN JOHN CRAGUN	IBM/33B	9754

TITLE OF INVENTION: AUTOMATIC SALES PROMOTION SELECTION SYSTEM AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	09/10/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
KEMPER, MELANIE A	3622	705-010000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).	2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
<input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.	1 _____
<input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.	2 _____
3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)	3 _____

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent);  individual  corporation or other private group entity  government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

Issue Fee  
 Publication Fee  
 Advance Order - # of Copies \_\_\_\_\_

A check in the amount of the fee(s) is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)	(Date)	
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.		
This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.		
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.		

TRANSMIT THIS FORM WITH FEE(S)



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/004,034	01/07/1998	BRIAN JOHN CRAGUN	IBM/33B	9754
7590	06/10/2004		EXAMINER	
WOOD HERRON & EVANS 2700 CAREW TOWER CINCINNATI, OH 45202			KEMPER, MELANIE A	
			ART UNIT	PAPER NUMBER
			3622	

DATE MAILED: 06/10/2004

## Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/004,034	CRAGUN ET AL.	
	Examiner M Kemper	Art Unit 3622	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed on 9/23/03.
2.  The allowed claim(s) is/are 1-4,6-9,11,12,14-18 and 20-25.
3.  The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
    - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other Decision on Petition for IDS.

M Kemper  
Primary Examiner  
Art Unit: 3622



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**  
**ASSISTANT SECRETARY AND COMMISSIONER**  
**OF PATENTS AND TRADEMARKS**  
**Washington, D.C. 20231**

In re Application of

Brian J. Cragun

Serial No. 09/004,034

Filed: January 7, 1998

For: AUTOMATIC SALES PROMOTION  
SELECTION SYSTEM AND METHOD

: DECISION ON PETITION UNDER

: 37 CFR 1.97(d) FOR

: CONSIDERATION OF

: INFORMATION DISCLOSURE

: STATEMENT AFTER FINAL

: REJECTION

The information disclosure statement filed in this application has been filed After Final Rejection and has been constructively treated as a petition to consider the IDS under 37 CFR 1.97(d).

The petition under 37 CFR 1.97(d), filed 9/26/03 for consideration of an information disclosure statement has been:

[ ] GRANTED. The information disclosure statement will be considered by the examiner.

[ X ] DENIED.

[ ] It was filed after payment of the issue fee. See 37 C.F.R. 1.97(d).

The petition lacks:

[ X ] The required fee under 37 CFR 1.97(d)(2)(iii) and 1.17(p).

[ X ] A proper certification as specified in 37 CFR 1.97(d) and 1.97(e).

The information disclosure statement has been placed of record in the file but has not been considered by the examiner.

Eric Stamber  
SPE, Art Unit 3622

Scott A. Stinebruner  
Wood, Herron & Evans, L.L.P.  
2700 Carew Tower  
441 Vine Street  
Cincinnati, Ohio 45202

Art Unit: 3622

1. The following is an examiner's statement of reasons for allowance: The prior art of record, Deaton, Gupta, and the Electronic Engineering Times article does not teach either singly or in combination an automated sales promotion selection system comprising an input device, a computer system, an output device, and a storage unit including a purchase advisor neural network and which further includes a customer demographics neural network that estimates buying characteristics of one or more customers most likely to be at a purchase location, and also produces item identifiers comprising the estimated item purchases of the estimated customers.

The prior art of record does not teach either singly or in combination an apparatus comprising a storage unit, a central processing unit, a purchase advisor neural network, and a plurality of item identifiers stored in the storage unit, the item identifiers identifying items available for purchase, wherein the customer data includes data relating to purchases of items by the customer, and wherein the purchase advisor neural network is configured to identify the sales promotion by determining if one or more of the item identifiers stored in the storage unit corresponds to an item likely to be purchased by the customer, wherein the storage unit further includes a customer demographics neural network that estimates buying characteristics of one or more customers most likely to be at a purchase location, and also produces item identifiers comprising the estimated item purchases of the estimated customers.

The prior art of record does not teach either singly or in combination a method of dynamically identifying sales opportunities for purchases of items by customers from an inventory of items comprising training a purchase advisor neural network, generating

sales opportunity output, selecting a set of item identifiers from among the sales opportunity output generated by the purchase advisor neural network as potential purchases from the inventory of items comprising estimating buying characteristics of one or more customers most likely to be at a purchase location and estimating item identifiers of items most likely to be purchased by the estimated customers, and selectively adapting the response of the purchase advisor neural network.

The prior art of record does not teach either singly or in combination a method of dynamically identifying sales opportunities for purchases of items by customers from an inventory of items comprising training a purchase advisor neural network; providing the trained purchase advisor neural network with customer data comprising training a demographics neural network that generates an output set of data defining predicted purchases of customers during a purchasing transaction, providing the trained demographics neural network with prediction data comprising the current date, current time of day, and environmental information and generating with the demographics neural network predicted customer purchases; generating sales opportunity output; selecting a set of item identifiers from among the sales opportunity output generated by the purchase advisor neural network; and selectively adapting the response of the purchase advisor neural network.

The prior art of record does not teach either singly or in combination a method of dynamically identifying a sales opportunity for a customer comprising: receiving customer data; generating with a purchase advisor neural network a sales opportunity; selectively adapting the response of the purchase advisor neural network; providing a

demographics neural network with prediction data comprising the current date, time of day, and environmental information; and generating with the demographics neural network an output set of data defining predicted purchases of customers during a purchasing transaction based upon the prediction data.

The primary reasons for allowance stated above reflect the inclusion of claim language which was previously objected. The claims have been considered as a whole in determining the reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gupta, WO 93/04449 teaches use of a neural network in providing advertisements or suggested products to the customer (p. 38).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Kemper whose telephone number is 703-305-9589. The examiner can normally be reached on M-F (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric W. Stamber can be reached on 703-305-8469. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



M Kemper  
Primary Examiner  
Art Unit 3622

MK